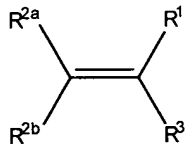
This listing of the claims replaces any and all prior versions and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Previously presented) A copolymer prepared by copolymerization of:

a first monomer having the structure of formula (I)

(I) 

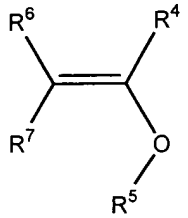
wherein

R^1 is H, F, CN, CH_3, or C_{1-6} fluoroalkyl,

R^{2a} and R^{2b} are independently H or F, and

R^3 is CN or COOR, wherein R is selected from the group consisting of H, C_{1-12} alkyl and C_{1-12} fluoroalkyl, or is selected so as to render R^3 acid-cleavable; and

a second monomer having the structure of formula (II)

(II) 

wherein

R^4 is H, C_{1-12} alkyl, C_{3-15} alicyclic, or fluorinated C_{3-15} alicyclic,

R^5 is C_{1-12} alkyl, C_{1-12} alkyl substituted with 1-12 fluorine atoms and 0-2 hydroxyl groups, or C_{3-15} alicyclic, or R^4 and R^5 together form a five-, six-, or seven-membered ring,

R^6 is H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl, or R^4 and R^6 together form a five-, six-, or seven-membered ring, and

R^7 is H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl, or R^7 and R^5 together represent -X-$(CR^8R^9)_n$-, in which case R^4 and R^6 are H, X is O or CH_2, n is 1 or 2, R^8 and R^9 are H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl, or together form an oxo moiety (=O), with the proviso that when R^8 and R^9 together form =O, n is 1,

wherein: (1) any of R^1, R^3, R^4, R^5, R^6, and R^7 may be further substituted with an inert, nonhydrogen substituent; (2) when R^5 is C_{1-12} alkyl, at least one of R^4, R^6 and R^7 is other than hydrogen; and (3) at least one of the first monomer and the second monomer contains one or more fluorine atoms.

2. (Previously presented) The copolymer of Claim 29, wherein R^1 is CF_3.

3. (Original) The copolymer of Claim 2, wherein R^3 is COOR.

4. (Original) The copolymer of Claim 2, wherein R^3 is CN.

5. (Original) The copolymer of Claim 1, wherein R^1 and R^2 are F and R^3 is COOR.

6. (Original) The copolymer of Claim 1, wherein R^1 is CN and R^2 is H.

7. (Original) The copolymer of Claim 3, wherein R is C_{1-12} alkyl.

8. (Original) The copolymer of Claim 5, wherein R is C_{1-12} alkyl.

9. (Original) The copolymer of Claim 3, wherein R is selected to render R^3 acid-cleavable.

10. (Original) The copolymer of Claim 5, wherein R is selected to render R^3 acid-cleavable.

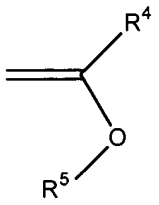
11. (Original) The copolymer of Claim 10, wherein R is a tertiary alkyl substituent.

12. (Original) The copolymer of Claim 11, wherein R is *t*-butyl.

13. (Original) The copolymer of Claim 11, wherein R is a C_5-C_{12} cyclic or alicyclic substituent with a tertiary attachment point.

14. (Previously presented) The copolymer of Claim 13, wherein R is selected from the group consisting of 2-methyl-2-adamantyl, 2-methyl-2-isobornyl, 2-methyl-2-tetracyclododecenyl, 2-methyl-2-dihydrodicyclopentadienyl-cyclohexyl,1-methylcyclopentyl, and 1-methylcyclohexyl.

15. (Previously presented) The copolymer of Claim 1, wherein the second monomer has the structure of formula (III)

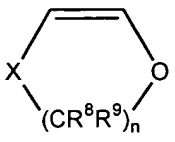
(III) 

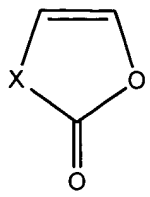
wherein:

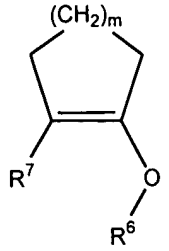
R^4 is $C_{1\text{-}12}$ alkyl, $C_{3\text{-}15}$ alicyclic, or fluorinated $C_{3\text{-}15}$ alicyclic; and

R^5 is $C_{1\text{-}12}$ alkyl, $C_{1\text{-}12}$ alkyl substituted with 1-12 fluorine atoms and 0-2 hydroxyl groups, or $C_{3\text{-}15}$ alicyclic.

16. (Previously presented) The copolymer of Claim 1, wherein the second monomer has a structure selected from the group consisting of (IV), (V), and (VI)

(IV) 

(V) 

(VI) 

wherein:

R^6 is H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl;

R^7 is H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl;

X is O or CH_2;

m is an integer between 1 and 3; and

R^8 and R^9 are H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl.

17. (Original) The copolymer of Claim 1, wherein the copolymer is substantially transparent to radiation having a wavelength of less than about 250 nm.

18. (Original) The copolymer of Claim 17, wherein the copolymer is substantially transparent to radiation having a wavelength of less than about 193 nm.

19. (Original) The copolymer of Claim 18, wherein the copolymer is substantially transparent to radiation having a wavelength of 157 nm.

20. (Original) The copolymer of Claim 1, further comprising at least one additional monomer having a structure that is different that the first and second monomers.

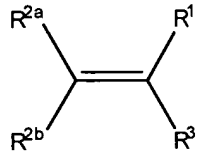
21. (Original) A lithographic photoresist composition comprising the copolymer of Claim 1 and a radiation-sensitive acid generator.

22. (Original) The lithographic photoresist composition of Claim 18, further comprising a second polymer.

23. (Previously presented) A process for generating a resist image on a substrate, comprising the steps of:

(a) coating a substrate with a film of a photoresist comprised of a radiation-sensitive acid generator and a copolymer synthesized from a first monomer having the structure of formula (I)

(I)



wherein

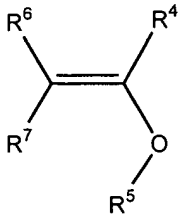
R^1 is H, F, CN, CH_3, or C_{1-6} fluoroalkyl,

R^{2a} and R^{2b} are independently H or F, and

R^3 is CN or COOR, wherein R is selected from the group consisting of H, C_{1-12} alkyl and C_{1-12} fluoroalkyl, or is selected so as to render R^3 acid-cleavable, with the proviso that when R^3 is CN, then R^1 is CF_3 and R^{2a} and R^{2b} are H; and

a second monomer having the structure of formula (II)

(II)



wherein

R^4 is H, C_{1-12} alkyl, C_{3-15} alicyclic or fluorinated C_{3-15} alicyclic,

R^5 is C_{1-12} alkyl, C_{1-12} alkyl substituted with 1-12 fluorine atoms and 0-2 hydroxyl groups, or C_{3-15} alicyclic, or R^4 and R^5 together form a five-, six-, or seven-membered ring,

R^6 is H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl, or R^4 and R^6 together form a five-, six-, or seven-membered ring,

R^7 is H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl, or R^7 and R^5 together represent

-X-$(CR^8R^9)_n$-, in which case R^4 and R^6 are H, X is O or CH_2, n is 1 or 2, R^8 and R^9 are H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl, or together form an oxo moiety (=O), with the proviso that when R^8 and R^9 together form =O, n is 1,

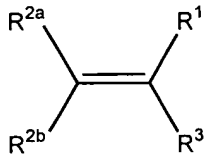
wherein any of R^1, R^3, R^4, R^5, R^6, and R^7 may be further substituted with an inert nonhydrogen substituent, and further wherein when R^5 is C_{1-12} alkyl, at least one of R^4, R^6 and R^7 is other than hydrogen;

(b) exposing the film selectively to a predetermined pattern of radiation so as to form a latent, patterned image in the film; and

(c) developing the latent image with a developer.

24. (Previously presented) In a lithographic photoresist composition comprised of a polymer transparent to deep ultraviolet radiation and a radiation-sensitive acid generator, the improvement comprising employing as the polymer a copolymer synthesized from a first monomer having the structure of formula (I)

(I)



wherein

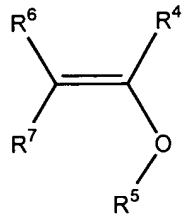
R^1 is H, F, CN, CH_3, or C_{1-6} fluoroalkyl,

R^{2a} and R^{2b} are independently H or F, and

R^3 is CN or COOR, wherein R is selected from the group consisting of H, C_{1-12} alkyl and C_{1-12} fluoroalkyl, or is selected so as to render R^3 acid-cleavable, with the proviso that when R^3 is CN, then R^1 is CF_3 and R^2 is H, and

a second monomer having the structure of formula (II)

(II)



wherein

R^4 is H, C_{1-12} alkyl, C_{3-15} alicyclic, or fluorinated C_{3-15} alicyclic,

R^5 is C_{1-12} alkyl, C_{1-12} alkyl substituted with 1-12 fluorine atoms and 0-2 hydroxyl groups, or C_{3-15} alicyclic, or R^4 and R^5 together form a five-, six-, or seven-membered ring,

R^6 is H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl, or R^4 and R^6 together form a five-, six-, or seven-membered ring;

R^7 is H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl, or R^7 and R^5 together represent -X-$(CR^8R^9)_n$-, in which case R^4 and R^6 are H, X is O or CH_2, n is 1 or 2, R^8 and R^9 are H, C_{1-12} alkyl, or C_{1-12} fluoroalkyl, or together form an oxo moiety (=O), with the proviso that when R^8 and R^9 together form =O, n is 1,

wherein any of R^1, R^3, R^4, R^5, R^6, and R^7 may be further substituted with an inert nonhydrogen substituent, and further wherein when R^5 is C_{1-12} alkyl, at least one of R^4, R^6 and R^7 is other than hydrogen.

25. (Original) The lithographic photoresist composition of Claim 24, wherein the photoresist composition is a positive resist and further comprises a photoacid-cleavable monomeric or polymeric dissolution inhibitor.

26. (Original) The lithographic photoresist composition of Claim 24, wherein the photoresist composition is a negative resist and further comprises a crosslinking agent.

27. (Original) The lithographic photoresist composition of Claim 26, wherein the crosslinking agent is a glycoluril compound.

28. (Original) The lithographic photoresist composition of Claim 27, wherein the glycoluril compound is selected from the group consisting of tetramethoxymethyl glycoluril, methylpropyltetramethoxymethyl glycoluril, methylphenyltetramethoxymethyl glycoluril, and mixtures thereof.

29. (Previously Presented) The copolymer of claim 1, wherein R^1 is H, F, CN, CH_3, CF_3, CF_2H, or CFH_2.

30. (Previously Presented) The copolymer of claim 29, wherein at least one of R^1, R^3, R^4, R^5, R^6, or R^7 is further substituted with an inert nonhydrogen substituent.

31. (Previously Presented) The copolymer of claim 30, wherein the inert nonhydrogen substituent is selected from the group consisting of F, C_{1-12} alkyl, C_{1-12} alkoxy, C_{1-12} alkenyl, C_{1-12} alkenyloxy, C_{1-12} fluoroalkyl, C_{1-12} fluoroalkoxy, and C_{1-12} fluoroalkenyl.